

Title (en)

Stationary suction device, application and machine for manufacturing fibrous sheets with such a suction device

Title (de)

Stationäre Saugvorrichtung, Verwendung und Maschine zur Herstellung von Faserstoffbahnen mit einer derartigen Saugvorrichtung

Title (fr)

Dispositif d'aspiration stable, utilisation et machine destinée à la fabrication de bandes de matière fibreuse dotées d'un tel dispositif d'aspiration

Publication

EP 1884589 A1 20080206 (DE)

Application

EP 07107320 A 20070502

Priority

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- DE 202006015872 U 20060804

Abstract (en)

The suction device for separating two adjoining guiding stripes useful in a machine for the production of paper-, cardboard- or fiber web (4), comprises a support area (10) by which an air permeable strips run on the suction device, and a lubricating slit (16) arranged in running direction of the strip. The slit is connected with an unit for supplying lubricant between the strip and the part support area bounding the suction openings (11), which are serially arranged in rolling direction of the strip, and is arranged above the suction openings viewed in running direction of the strip. The suction device for separating two adjoining guiding stripes useful in a machine for the production of paper-, cardboard- or fiber web (4), comprises a support area (10) by which an air permeable strips run on the suction device, and a lubricating slit (16) arranged in running direction of the strip. The slit is connected with an unit for supplying lubricant between the strip and the part support area bounding the suction openings (11), which are serially arranged in rolling direction of the strip, and is arranged above the suction openings viewed in running direction of the strip. The slit is arranged outside of a housing (19) surrounding interior area of the suction device. The lubricant supply unit is arranged in the housing and is coupled with the slit over the suction opening in pressure or fluid tight manner. The support area is formed by single part support area of carrier elements. The slit and an additional strip are formed by the part support area. The slit is integrated in the part support area. The slit viewed in cross section has a value of ≈ 5 mm in the strip rolling direction. The slit is aligned in direction diagonally to the running direction of the strip and passes in direction from inlet cross section to outlet cross-section tended opposite to the support area. The cross section of the slit is characterized through a constant value. The slit extends itself as a single lubricating slit over the total width of the lubrication area. The lubricant supply unit coupled with the lubrication slit has distribution device that extends itself over partial area of the width of the lubrication area diagonally to the running direction of the strip and that is coupled with a lubricant source. The distribution device is implemented as a distribution tube and has a connection for indirect coupling with the lubricant source. The coupling is carried out in side and/or middle area of the lubricant source. The distribution devices are arranged itself with one another diagonally to the running direction of the strip extending over the lubrication area. The lubricant supply unit has means for controlling the throughput in the slit, and a cleaning arrangement having a cleaning element, which is movably arranged inside and outside of the lubricating slit. The cross-section at the outlet of the slit is larger than the cross-section of the distribution device. The cleaning element is arranged on a sledge that is arranged in the storage of the lubricant supply unit or in the housing. The sledge is assigned as a drive, which moves diagonally to the running direction of the strip. Water is used as a lubricant. Means is arranged for adding and mixing the lubricants with a solution, cleaning fluid and/or friction reducing additives. The support area is implemented over the length of the suction device in running direction of the strip viewed in mounting position. The suction opening, which is turned to the slit, extends itself over the width of the suction device in wave or zigzag forming manner. An independent claim is included for a machine for the production of paper-, cardboard- or fiber web.

Abstract (de)

Die Erfindung betrifft eine stationäre Saugvorrichtung zum Konditionieren von endlosen Bändern, insbesondere Pressfilzen in Maschinen zur Herstellung von Faserstoffbahnen, insbesondere Papier-, Karton-, oder Tissuebahnen, umfassend eine Stützfläche, über die ein an der Saugvorrichtung vorbeilaufendes luftdurchlässiges Band für Saugöffnungen in der Stützfläche besaugbar ist. Die Erfindung ist dadurch gekennzeichnet, dass in Laufrichtung des Bandes (2) betrachtet vor einer Saugöffnung (11) und der diese in dieser Richtung begrenzenden Teilstützfläche (12.1 bis 12.n) ein Schmier spalt (16) vorgesehen ist, der mit einer Einrichtung (15) zum Einbringen von Schmierfluid zwischen dem Band (2) und die die Saugöffnung (11) begrenzende Teilstützfläche (12.1 bis 12.n) verbunden ist.

IPC 8 full level

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CPC (source: EP)

D21F 1/48 (2013.01); **D21F 1/52** (2013.01)

Citation (search report)

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Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

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